DOCUMENT RESUME

ED 293 893 TM 011 494

AUTHOR Russo, Rocco P.
TITLE The National Education Longitudinal Study of 1988: Teacher Survey.
SPONS AGENCY Center for Education Statistics (OERI/ED), Washington, DC.
PUB DATE Apr 88
NOTE 20p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA, April 5-9, 1988). For related document, see ED 289 897.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Curriculum; Elementary School Teachers; *Grade 8; Junior High Schools; *Longitudinal Studies; *National Surveys; Teacher Attitudes; Teacher Background; Teacher Behavior; Teacher Characteristics; *Teacher Student Relationship
IDENTIFIERS *National Education Longitudinal Study; *Teacher Surveys

ABSTRACT

The National Education Longitudinal Study of 1988 (NELS) is the third in a series of longitudinal studies sponsored by the Center for Education Statistics of the Department of Education. The NELS focuses on 26,000 randomly selected eighth-grade students constituting a national sample. The study involved administration of a cognitive test to students; surveys of students, parents, school administrators, and teachers; and a base-year data collection period during the spring of 1988, with follow-up surveys at two-year intervals intended to facilitate long-term trend analysis. The purpose and objectives of the teacher survey component of the NELS, survey administration procedures, and results of the field test of the NELS teacher survey undertaken in the spring of 1987 are discussed. The teacher survey links data on specific teacher characteristics and practices with data on the characteristics and educational outcomes of participating students. It gathers data on teacher impressions of individual students, curriculum content, and teacher background and activities. (TJH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED293893

THE NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988 TEACHER SURVEY*

Rocco P. Russo

Westat, Inc.
1650 Research Boulevard
Rockville, MD 20850

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

ROCCO P. RUSSO

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA, April 5-9, 1988.

Special thanks is extended to David Bayless for his assistance in the presentation of this paper.

*** The research upon which this paper is based was sponsored by the Center for Education Statistics, U.S. Department of Education. Opinions expressed are those of the author and do not represent official positions of the Federal Government.**

TM 011 494

THE NELS:88 TEACHER SURVEY

Introduction

The National Education Longitudinal Study of 1988 (NELS:88) has become the third in a series of longitudinal studies sponsored by the Center for Education Statistics of the U.S. Department of Education. Building upon its predecessor studies, the National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond (HS&B), NELS:88 is designed to provide trend data about the critical transitions experienced by young people as they develop, attend school, and embark on careers.

NELS:88 focuses on a sample of students who are enrolled in the eighth grade in the spring of 1988. Sample projections estimate that approximately 26,000 eighth grade students will be selected at random from a nationally representative sample of approximately 1,000 schools. The overall design for the study includes four major component surveys -- of students, parents, school administrators and teachers -- and a cognitive test component intended as a supplement to the student survey. In addition, the research design stipulates a base year data collection period during the spring of 1988, with follow-up surveys at two-year intervals which are intended to facilitate long-term trend analyses.

This paper is intended to: (a) identify the purpose and objectives of the Teacher Survey component of NELS:88, (b) describe the survey administration procedures, and (c) present the results of the field test of the NELS:88 Teacher Survey undertaken in the spring of 1987. Each of these items are addressed in the remaining sections of this paper following a brief overview of related longitudinal studies that have influenced the development and undertaking of NELS:88.

Background

This year, 1988, marks the twentieth anniversary since Congress has mandated that the U.S. Department of Education, Center for Education Statistics (CES) "... collect and disseminate statistics and other data related to education in the United States" (section 406(b) of the General Education Provisions Act, as amended by 20 U.S.C. 1221e-1). Since the passage of this mandate, educational policy-makers and researchers, at all levels, have advised CES to include

in their response to this mandate the provision of data that would provide a better understanding of the transitions made by young people from education to work, from dependence to independence, and from youth to adulthood.

A response to these data needs was initiated in 1970 with the establishment of the Longitudinal Studies Branch (LSB) of CES. The purpose of the LSB research program is to gather longitudinal data on nationally representative samples of students, which would aid in addressing such issues as the quality, equality, and diversity of educational opportunity and the effect of these factors upon individual development and educational and career outcomes. Since its creation, two major longitudinal studies have been launched and successfully undertaken. Included are: the National Longitudinal Study of the High School Class of 1972 (NLS-72), and High School and Beyond. Each of these programmatic efforts is discussed briefly below.

The National Longitudinal Study (NLS-72)

NLS-72 began in the spring of 1972 with a survey of a national probability sample of 19,001 seniors from 1,061 public, private and church-affiliated high schools. The sample was designed to be representative of the approximately three million high school seniors in more than 17,000 schools in the spring of 1972. Each sample member was asked to complete a student questionnaire and a 69-minute test battery. In addition, school administrators were asked to supply survey data on each student, as well as information about the school's programs, resources and grading system.

Five follow-ups conducted in 1973, 1974, 1976, 1979, and 1986 have been completed subsequently. At the time of the First Follow-up, an additional 4,450 students from the class of 1972 were added to the sample. Through intensive locating and tracking efforts, 83 percent of the 1972 Base Year sample and 85 percent of the expanded First Follow-up sample responded to the Fourth Follow-Up in 1979. Tracking efforts included the distribution of periodic newsletters to sample members in order to maintain their interest and cooperation and to update addresses for future contacts.

In addition to background information, the NLS-72 Base Year and Follow-up Surveys collected data on respondents' educational activities, such as schools attended, grades received,

and degree of satisfaction with their educational institutions. Participants also were asked about work experiences, periods of unemployment, job satisfaction, military service, marital status, and children. Attitudinal information on self-concept, goals, participation in political activities, and ratings of their high schools are other topics for which respondents have supplied information.

High School and Beyond (HS&B)

The second major study undertaken by the CES was HS&B whose base year data collection efforts were initiated in the spring of 1980. HS&B was initiated in order to capture changes that have occurred in educational and social conditions, Federal and state programs, and needs and characteristics of students since the time of NLS-72. Thus, HS&B was designed to maintain the flow of relevant data to policy-makers at all levels who need to base their decisions on information that is reliable, relevant to the issues at hand, and current.

For the Base Year data collection, students were selected through a two-stage probability sample with schools as the first-stage units and students within schools as the second-stage units. There were 1,015 public, private and church-affiliated secondary schools in the sample and a total of 58,270 participating students. Unlike NLS-72, HS&B cohorts included both tenth graders and twelfth graders.

The base year survey included the administration of questionnaires and cognitive tests to over 30,000 sophomores and 28,000 seniors. Questionnaires focused on obtaining information on the educational and vocational choices made between the sophomore and senior years. In addition, the questionnaires covered school experiences, activities, plans, selected background characteristics, and language proficiency. By surveying sophomores again in their senior year, information was obtained on critical decisions made shortly before graduation, as well as information on high school dropouts. Unlike NLS-72, HS&B included a collection of data on the factors affecting family-formation behavior, intellectual development, and social participation.

Data were also collected from the school administrator in each participating school requesting information about school policies, programs, and student body characteristics. In

addition, teachers provided comments on students in the sample. Finally, a sample of parents of sophomores and seniors was surveyed primarily for information about the financing of higher education.

Since the base year data collection in 1980, there have been three follow-ups of the HS&B cohorts, one in the spring of 1982, one in the spring of 1984, and the other in the spring of 1986. The third follow-up included the collection of financial aid record information for the 1980 high school seniors and sophomores who reported attending any postsecondary institution after high school. For the 1980 sophomores, postsecondary transcripts were also included in this follow-up data collection.

The NELS:88 Research Design

NELS:88 seeks to gather trend data about critical transitions experienced by young people as they develop, attend school, and embark on careers. NELS:88 focuses on a sample of students enrolled in the eighth grade in the 1987-88 academic year. Similar to its predecessor studies, NELS:88 focuses on the collection of policy-relevant information related to such topics as effective schools, discipline, homework, course taking patterns, cognitive ability, dropouts, private schools, vocational education, special education, instruction for limited English speaking students, postsecondary access and choices, student financial assistance, employment stability, family formation, and graduate/professional training.

The base-year data collection period for NELS:88 began in February 1988 and will continue through June 1988. The sample of students will be administered a student questionnaire and a cognitive test battery intended to measure cognitive growth over time in reading, mathematics, science, and social studies. These data are to be supplemented by a school survey directed at the principals in schools where the participating students are enrolled, a survey of selected teachers of participating students, and a parent survey of a sample of participating students' parents. In addition, other components of the above surveys provide supplemental details concerning language minority students, gifted and talented students, and mathematics and science curriculum.

Teacher Survey Design

The primary purpose of the Teacher Survey is to link information regarding specific teacher characteristics and practices to information about the characteristics and educational outcomes of the participating eighth grade students. The primary objective to be meet by the information obtained through this survey is to assist in acquiring an understanding of the effects of teaching on longitudinal student outcomes. Thus, data are collected that address teacher qualifications, specific course activities, curriculum exposure, and student-specific characteristics as judged by teachers. The overall design of the teacher survey reflects the four curriculum areas targeted by the overall goals established for NELS:88. These areas are: mathematics, science, English, and social studies.

The teacher questionnaire stresses the acquisition of information that may help account for the sampled students' subsequent development, particularly in the educational arena. Emphasis is placed on meeting the longitudinal student data needs targeted by NELS:88 as well as enabling cross-sectional analyses of students' educational attainments at the eighth grade level. Thus, the following information needs were identified:

- Teacher Impressions of Individual Students -- Specific information related to the teacher's impressions of school-related interests, aptitudes, and achievements of individual students.
- Curriculum Content -- Data about the name, ability track, curriculum, text, etc., for each course currently being taught by the teacher to one or more of the sampled students.
- Teacher Background and Activities -- General information about the teacher's demographics, qualifications and experience, current teaching status, duties, instructional methods, and influence over school and classroom policies.

Purpose and Content of the Teacher Questionnaire

One of the initial tasks undertaken by project staff was the design and development of the teacher questionnaire. Initially, a content outline was prepared detailing possible information topics, suggesting item formats, and recommending specific items for inclusion in the questionnaires based on their use and performance in prior longitudinal studies (i.e., NLS-72 and

HS&B). Following review and input by CES staff and members of a National Advisory Panel, the content outline was expanded into a draft questionnaire. After additional reviews and revisions as well as the development of supporting documentation, the teacher questionnaire was approved by FEDAC/OMB. Clearance was granted in December 1986 allowing the questionnaire to be formatted and printed in preparation for its administration during the Field Test.

The teacher questionnaire is designed to be responded to by teachers of the sampled eighth grade students. However, it is important to note that the teacher survey is not targeted at acquiring teacher-level data. Rather, it is targeted at identifying student-level data as reported by teachers, pertaining to specific eighth grade students and the mathematics, science, English, and social studies courses in which they are enrolled. Teachers are asked to respond to the questionnaire items relative to a specific list of sampled eighth grade students and to designated classes in which the sampled students are enrolled. The standard assurances of confidentiality and anonymity are also included.

The questionnaire contains three distinct sections:

- Part I - Student Information asks the identified teachers to indicate which of the sampled students they have had in their classes during the current academic year, and for those students enrolled in their class(es), to evaluate whether or not the student has had various school-related problems and handicaps.
- Part II - Class Information requires the teacher to respond to a series of course-related questions regarding a distinct set of classes they have been identified as teaching to one or more of the sampled students. Subsections of items within this segment of the questionnaire apply to the four specific curriculum areas (i.e., mathematics, science, English, and social studies), enabling teachers to respond to these subsections as appropriate.
- Part III - Teacher Background and Activities requests teachers to provide general background information about themselves and their school.

Respondent Sample for the Teacher Questionnaire

The sample design established for the identification of teachers is based on the need to obtain information about the NELS:88 sample students' school-related characteristics and experiences, especially those that might account for the students' educational development. The

teacher survey design is guided by the student sample and the four pre-established curriculum areas (i.e., mathematics, science, English, and social studies) that are the primary focus of NELS:88. At each school, approximately 30 students were sampled for participation in the Field Test. To achieve the objective of "linking information from the teacher to data about individual students in the NELS:88 sample," two teachers were identified as respondents to the teacher questionnaire for each student.

Selection of respondents to the teacher questionnaire for each student is based on the assignment of two curricula areas per school included in the Field Test sample. Following the listing of the sampled schools in order by state (i.e., CA, FL, IL, NY, and TX) within level within control; the random sequencing of the four curriculum area combinations (i.e., 1-Mathematics and English, 2-Science and Social Studies, 3-Mathematics and Social Studies, and 4-Science and English); and the selection of a random start combination (i.e., combination 3-Mathematics and Social Studies), curriculum areas were assigned to schools in repeating cycles of combinations, 3, 4, 1, 2. Thus, each Field Test school was randomly assigned one of the following combinations of curriculum areas:

- Mathematics and English;
- Mathematics and Social Studies;
- Science and English; or
- Science and Social Studies.

This selection procedure was designed to assure representation of Mathematics or Science curriculum areas and also of English or Social Studies in all participating schools. The curriculum area combinations of English and Social Studies as well as Science and Mathematics were not components of the design. In addition, the design achieved balanced representation of the four curriculum area combinations across the school variables of control (i.e., Catholic, Other Private, and Public) and level (i.e., Elementary, Middle, Junior-Senior High School). To a lesser degree, the design achieved balance across the five states covered by the Field Test sample.

Following the selection of the student sample in a given Field Test school and the random assignment of the curriculum combination areas, a matrix of information was obtained from school records. The Class Schedule matrix consisted of 32 rows (one per sampled student)

and two columns (one for each assigned curriculum area). For each cell in the matrix, that is, for each student-curriculum combination, the following information was recorded:

- Name of the student's current teacher in that subject;
- Weekly schedule for the class (e.g., period 3);
- Unique identifier for the student-teacher-subject combination (e.g., M-1 for the first student's current math class); this designation was used for all other sampled students who are in that same class-scheduled combination; and
- Course title.

Therefore, at any given school, each sampled student's current teacher in each of the two designated curriculum areas was selected to receive a teacher questionnaire. Results of the use of this sampling scheme indicated that the range of the number of teacher-respondents per sampled school was 1 to 15, with an average number of 5.9 teacher-respondents per school.

A total of 302 teachers in the 51 participating Field Test schools were requested to respond to the teacher questionnaire. Of these, 284 completed and returned questionnaires. Of the remainder, seven teachers (2%) refused to return the questionnaire; three teachers (1%) were categorized as nonrespondents; two teachers (1%) were no longer employed by the school; and six teachers (2%) were sampled in error. Thus, a response rate of 96 percent (284/302-6) was achieved. Additional details, related to the teacher questionnaire response rates, are presented in a later section of this paper.

Data Collection Procedures

Data collection activities were predicated on the completion and return of a Class Schedule matrix by the school coordinator. The Class Schedule fulfills two main purposes: (1) to identify, by teacher, the specific class each student attends for each of the curriculum areas assigned to the school, and (2) to link teacher ratings of students and descriptions of curriculum and practices to individual sampled students.

The Class Schedule must be received and processed before teacher questionnaires are sent to the school coordinator ideally, two weeks prior to survey day. The Class Schedule

information is used to produce, for each teacher-respondent, a list of classes for which the teacher is asked to provide descriptive information in part two of the questionnaire.

In general, the Class Schedule matrix and related materials worked quite well. In some cases, coordinators telephoned with clarification questions (10), and other coordinators made errors in completing the matrix which necessitated telephone follow-up contacts to clarify discrepancies (9). All cases involved minor questions or discrepancies that can be avoided during the base year effort by clarifying the instructions for completing the Class Schedule.

Coordinators were requested to complete and return a Class Schedule matrix following the selection of the student sample in each participating school. The completion and processing of the Class Schedule matrix was to be completed at least 10 to 12 working days prior to the Field Test school's assigned survey day. In more than one-half the cases, this target completion date was not met. As a result, in these cases an alternative plan was needed for the distribution and return of completed questionnaires.

Following the preparation and printing of the approved teacher questionnaire and survey materials, as well as the identification of the sample of teacher-respondents, data collection procedures were initiated. Data collection includes all activities associated with obtaining completed questionnaires. These activities include: questionnaire mailout, receipt control, nonresponse follow-up, and data retrieval follow-up. Each activity is described in detail in the following sections.

Mailout. Distribution of the teacher and school questionnaires was accomplished in tandem by preparing a unique "school package" for each participating Field Test school. Each package contained the required number of teacher and school questionnaires, related cover letters, and instructional materials for the return of the school package.

The planned distribution method (method 1) involved transmitting a "school package" to the assigned school coordinator in order that the package would arrive at least two weeks prior to the scheduled survey day. This allowed time for the questionnaires to be distributed and completed before survey day. Thus, completed questionnaires could be collected by the team leader on survey day. During the Field Test, 23 schools were sent packages by this method.

For the remaining 28 schools, the materials required to prepare a school package for mailout were not received two weeks before survey day. For example, additional time may have been required to obtain school cooperation, a student roster that was needed for student sampling, or a completed Class Schedule matrix. Therefore, an alternative data collection method (method 2) was used with these schools. This second method involved sending a questionnaire package to the team leader before survey day. The team leader then gave the package to the school coordinator on survey day. The school coordinator was responsible for distributing and collecting questionnaires, and returning the completed forms.

Receipt Control. Records of all data collection activities were maintained in a computer-based receipt control system. This system was designed to maintain a database which included two files: a school file containing school-level information such as scheduled survey date and mailout date; and the questionnaire file containing information for each questionnaire, such as date received and status code.

When a "package" of questionnaires was returned, the contents were reviewed and status codes and dates were assigned and logged in the receipt control system. The questionnaires were then filed for further processing. The final status of questionnaire receipt by control of school (i.e., public, Catholic, and other private) appears in Table 1. In general, no trends in "refusals" or "nonresponse" were noted for the teacher questionnaire.

Table 1. Teacher Questionnaire Status by Control of School

Teacher Questionnaire Status	Total	Control of School		
		Public	Catholic	Other Private
Nonresponse	3	3	-	-
Questionnaire received	284	254	11	19
Teacher refused	7	7	-	-
Teacher left school	2	2	-	-
Teacher sampled in error	6	5	-	1
Total	302	271	11	20

Nonresponse Follow-up. The three types of follow-up conducted for nonrespondent teacher questionnaires were: telephone calls to the coordinator when no package was received from a school, telephone calls to the coordinator when an incomplete package was received, and telephone calls to sampled respondents to collect questionnaire information by phone. Each of these types of follow-up is discussed in detail in the following sections.

After a questionnaire package was mailed, the expected return date was determined based on the mailout method used. An expected return date of one week after survey day was used for schools sent questionnaires by mailout method 1. For schools sent questionnaires by mailout method 2, the expected return date was three weeks after survey day.

Of the 51 schools in the Field Test, 38 returned packages on or before the expected return date. Seven schools returned packages within one week of the expected return date. For the remaining six schools, all of which used mailout method 2, prompting telephone calls were made to the coordinators. Five of the six schools responded after one telephone contact. The remaining school required two telephone contacts before responding.

The second type of nonresponse follow-up involved telephone calls to coordinators for incomplete packages. Sixteen incomplete packages were received during the Field Test. If questionnaires were not received by the target date specified on the transmittal form, a follow-up telephone call was made to the school. Of the 16 incomplete packages, 11 required telephone calls to the coordinator.

For those questionnaires not received after follow-up telephone calls to the coordinator, the sampled respondents were contacted to collect questionnaire data by telephone. Nine teacher questionnaires required this type of nonresponse follow-up. These contacts with respondents resulted in seven refusals and two that would not complete questionnaires by phone but promised to mail them in. None of these forms was received, however.

Data Retrieval Follow-up. If a questionnaire contained a key question error or a data consistency error that related to a key question, a data retrieval telephone call was made to the respondent. When this occurred, all errors or missing data on the questionnaire were resolved.

Table 2 shows the number of data retrieval follow-up cases by the control of the school (i.e., public, Catholic, and other private). No trends were noted in the degree of data retrieval follow-up by the control status of the Field Test school. However, a large proportion of teacher questionnaires required data retrieval follow-up. Additional details, related to the data retrieval follow-up effort, are presented in a later section of this paper.

Table 2. Data Retrieval Follow-up Status by School Control

Teacher questionnaire data retrieval status	Total	Control of School		
		Public	Catholic	Other Private
Data retrieval follow-up required.....	225	201	9	15
No data retrieval follow-up required.....	77	70	2	5
Total.....	302	271	11	20

All data retrieval follow-up telephone calls were conducted by telephone interviewers who were provided interactive training and a procedural manual. The manual included general instructions, administrative procedures, and instructions for handling specific data retrieval items.

Data Processing Completed Questionnaires. Data preparation and processing included all activities associated with converting information from completed questionnaires to clean data files. These activities included manual editing and coding, data entry, and machine editing, which are discussed in the following sections.

Manual Editing and Coding. This operation included manual editing and coding of the questionnaires. The purposes of the editing and coding operation were:

- To identify questionnaires needing data retrieval and prepare them for telephoning;
- To identify problem situations requiring coding decisions;

- To review completed data retrieval cases, recoding as necessary; and
- To prepare all questionnaires for data entry.

Data Entry. Coded questionnaires were transmitted in batches for data entry. Questionnaires were keyed to disk following specifications programmed specifically for the questionnaire. These specifications included all skip patterns and zero-filling of numeric fields. Each questionnaire batch was 100 percent key verified. After verification, each batch file was submitted for machine editing.

Machine Editing. The purpose of the machine edit operation was to identify and correct errors on the questionnaire data files. The types of errors corrected included respondent errors, coding errors, and data entry errors. All checks made during manual editing were also made during machine editing. Thus, any errors not identified manually were identified by computer. The machine edit specifications included the following types of checks: (a) alpha versus numeric checks, (b) range checks, (c) skip pattern checks, (d) data consistency checks, and (e) addition checks.

Analysis of Questionnaire Item Response and Nonresponse

As noted in a preceding section, the overall response rate achieved for the Teacher Survey was 96 percent. Although this rate was quite acceptable, several suggestions and/or modifications were identified that would improve the quality of the information acquired through the survey instruments.

Overall, data collection and retrieval procedures related to the teacher questionnaire were judged to be successful. In total, 284 of the 302 questionnaires distributed were completed and returned. Of the remaining 18 questionnaires, seven were considered refusals, three were categorized as nonresponses, two were not returned because the teacher-respondent left the sampled school, and six teacher-respondents were sampled in error by the school coordinators.

As previously discussed, approximately 5.9 teacher respondents were identified per Field Test school. On the average, each teacher provided ratings for 10.5 students in Part I of the

questionnaire. Only 15 percent of the teacher-respondents were required to provide ratings for more than 18 students. However, six teacher-respondents were required to provide ratings for all 32 sampled students in their school.

In Part II of the questionnaire, an average of 2.8 classes were described by each teacher-respondent. In total, 790 teacher-class ratings were provided by the 284 teacher-respondents. Of this total, 208 were identified as English teacher-class combinations, 207 were identified as science teacher-class combinations, 191 were identified as social studies teacher-class combinations, and 184 were identified as mathematics teacher-class combinations. Table 3 presents the frequency distribution of the number of classes rated by the teacher-respondents. In total, 12 teacher-respondents (4.3 percent) were required to rate more than five classes.

Table 3. Number of Courses Rated by Teacher-Respondents

Number of Courses	Number of Respondents	Percent
1	73	25.7
2	69	24.3
3	50	17.6
4	46	16.2
5	34	11.9
6	11	3.9
9	1	0.4
	284	100.0

In general, the percentage of response to all items equaled or exceeded 90 percent. Only, ten items yielded lower response rates, ranging from 83 percent to 88 percent. Teacher-respondents infrequently provided a "Don't Know" or "Refused" response to items. It should be noted that these reported percentages are based on the number of expected responses for an item which varies due to item skip patterns.

Data retrieval follow-up efforts were required for 225 questionnaires or 74.5 percent. In part, this high percentage of follow-up effort was due to the amount of time that it took to complete the questionnaire, as reported by teacher-respondents. The average number of person-hours required to complete the questionnaire was 1 hour and 9 minutes, with a range of 10 minutes to 5 hours. This time requirement was 15 percent over the one hour response burden

target established for the teacher questionnaire and suggests that the overall length of the questionnaire be shortened.

A second factor relative to the high follow-up effort relates to discrepancies noted during the editing of return questionnaires. The editing process discovered apparent confusions in responses indicating that a teacher-respondent did not have one or more of the sampled students assigned to his/her class while the Class Schedule matrix completed by the coordinator indicated that the sampled student was assigned to the teacher's class. Follow-up calls determined that most discrepancies were the result of errors made by the teachers. In some cases, teachers interpreted the Part I questionnaire items to include only students assigned to them continuously since September, instead of at any time since September. While in other cases, teachers scanned the list of student names quickly and skipped some students they should have included.

Finally, as a result of coding and editing efforts as well as telephone follow-up activities, several problem items were noted. Specific recommendations were suggested regarding the improvement of these items. Suggestions included: deleting response options, reformatting question stem and/or response options, or deletion of the item.

Linkage of Teacher Data to Student Files

One of the key objectives to be met by the Teacher Survey is the linkage of information about schools, teachers, curriculum, and teacher practices to individual sampled students. The linkage of data acquired through the teacher questionnaire is quite complex and is achieved solely through the Class Schedule matrix. The Class Schedule identifies, for each sampled student, the student's teachers in two pre-assigned curriculum areas and the specific courses (i.e., course title and class period or section number) in which the student is enrolled. Thus, the Class Schedule provides the mechanism by which teacher ratings of individual students can be matched to the sampled students as well as matching descriptive course information about the students' enrolled classes.

Data processing of the completed Class Schedules identified 3,112 possible student-teacher and student-course combinations. That is, two teachers and courses were identified for each of the 1,556 sampled eighth grade students. (Note: The total number of sampled eighth grade

students varies with respect to the total number of eighth grade students presented in related reports or papers due to the varying number of eighth grade students sampled per school, which was not adjusted for during the Field Test.)

Of the 3,112 student-subject combinations, individual student ratings and course information were matched to 2,845 student-subject combinations or 91.4 percent of the expected combinations. Of the remaining 267 combinations, 74 were not matched to teacher ratings due to student withdrawals from school, three students were not enrolled in courses in the pre-assigned curriculum areas, and 190 combinations were not matched due to missing teacher questionnaires (144) or due to a teacher-respondent's indicating that he/she did not have the sampled student enrolled in his or her class (46).

Although each sampled student was expected to be matched to two teacher ratings, 142 students were provided ratings by more teacher-respondents than was expected. This additional yield of student-teacher information is a positive, yet unpredictable, result of the Teacher Survey design.

In summary, the matching of teacher data to individual students was achieved for approximately 91 percent of the eighth grade student sample. Thus, no alterations are proposed to the Teacher Survey designs for the base year effort.

Summary of Recommendations

Overall, the Field Test of the Teacher Survey was judged a success. The overall questionnaire response rate achieved was 96 percent. In addition, item response rates were more than sufficient, while respondents infrequently "refused" to respond to items or responded "Don't Know."

Although all Field Test activities were successfully conducted, several modifications to procedures, materials, and questionnaires have been suggested. This final section, summarizes the recommendations that have been implemented in the undertaking of the NELS:88 Base Year study. Recommendations are presented and highlighted in the following three broad categories: pre-survey activities, data collection activities, and instrumentation.

Pre-survey activities. Prior to the distribution of questionnaires to respondents, several sources of information were required, and links between these sources had to be maintained in order to meet the overall study design goal of linking teacher information to individual sampled students. Some timing concerns were found in the acquisition and merging of data files and materials necessary for the administration of the teacher questionnaire resulting in the use of an alternative mailing method.

The alternative mailing plan (method 2) proved to be workable for the Field Test because of the small number of participating schools. However, use of this alternative mailing method is to be relied upon as little as possible during the base year effort. In order to ensure that Class Schedule forms are completed in a timely manner, and that "school packages" arrive prior to the school's survey day, these materials are transmitted via express mail, when necessary.

In cases where the "school packages" is not transmitted prior to survey day, it is mailed directly to the coordinator who is then responsible for the distribution, collection and return of questionnaires.

Data collection activities. Once questionnaire packages were transmitted, remaining survey activities were completed with very few problems. The added burden of tracking questionnaires through two different distribution methods is basically a logistical concern. Additional nonresponse efforts were required for missing and/or incomplete questionnaire packages returned by school coordinators (using the alternative distribution approach). The added logistical concerns and nonresponse follow-up efforts are hoped to be reduced during the base year effort by modifying timing of the collection of pre-survey information, as discussed above.

Instrumentation. Directions for completing the questionnaire, individual wording of item stems, and item response scales were well understood by respondents and were effective in acquiring the targeted information. As reported, questionnaire and item nonresponse rates for the school questionnaire was quite low. However, the person-hours required by respondents to complete the questionnaire exceeded project staff projections. This latter finding would suggest that the length of the questionnaire be reduced to remain within the original response burden targets. A review of data items and information needs basically resulted in very few changes to the questionnaire for the base-year study. Several of the specific modifications to problematic items

were incorporated. Particular attention was given to the clarification of the student rating segment of the questionnaire (Part I) in order to reduce potential discrepancies between teacher responses and the completed Class Schedule matrix. The modified teacher questionnaire contains the same three segments and generally, the same number of items.